Racial/Ethnic Discrimination and Common Mental Disorders Among Workers: Findings From the EMPIRIC Study of Ethnic Minority Groups in the United Kingdom

Kamaldeep Bhui, MD, Stephen Stansfeld, PhD, Kwame McKenzie, MRCPsych, Saffron Karlsen, MSc, James Nazroo, PhD, and Scott Weich, MD

Objectives. We measured perceived discrimination and its association with common mental disorders among workers in the United Kingdom.

Methods. We conducted a secondary analysis of a national sample of 6 ethnic groups (n = 2054). Discrimination was measured as reports of insults; unfair treatment at work; or job denial stemming from race, religion, or language. The outcome assessed was presence of common mental disorders.

Results. The risk of mental disorders was highest among ethnic minority individuals reporting unfair treatment (odds ratio [OR] = 2.0; 95% confidence interval [CI] = 1.2, 3.2) and racial insults (OR = 2.3; 95% CI = 1.4, 3.6). The overall greatest risks were observed among Black Caribbeans exposed to unfair treatment at work (OR = 2.9; 95% CI = 1.2, 7.3) and Indian (OR = 3.1; 95% CI = 1.4, 7.2), Bangladeshi (OR = 32.9; 95% CI = 2.5, 436.0), and Irish (OR = 2.9; 95% CI = 1.1, 7.6) individuals reporting insults.

Conclusions. Racial/ethnic discrimination shows strong associations with common mental disorders. (*Am J Public Health.* 2005;95:496–501. doi:10.2105/AJPH.2003.033274)

Racial discrimination is known to be an important risk factor for mental illness among the US workforce.[1–3] Sources of stress have been shown to mediate the hazardous effects of discrimination,[4,5] but there is also evidence that specific work-related tensions, such as effort–reward imbalance, increase workplace sickness absences.[6] Stress can result if discrimination thwarts one's career aspirations, reduces one's sense of "control" in the work environment, or generates higher workloads in the face of limited promotional or financial rewards.

Although the association between workplace discrimination and stress has been investigated in the United States,[7,8] there are no data, to our knowledge, on the specific effects of racial discrimination on the mental health of the United Kingdom's multiethnic workforce. Various investigations show that common mental disorders (i.e., anxiety and depression) account for between 20% and 40% of primary care consultations,[9,10] a third of lost days from work due to ill health,[9] increased mortality,[11] and impairments in physical and social functioning.[12] The annual cost of common mental disorders in the United Kingdom has been estimated to exceed £6 billion.[13] Even mild forms of mental disorder can lead to significant, and sometimes prolonged, disability and loss of working days.[14] Therefore, racial discrimination that leads to common mental disorders can undermine occupational functioning and the economy and deserves to be considered as a major public health issue.

"Race" is socially constructed, with little biological validity, as a risk factor that fully explains inequalities in health; there is more persuasive evidence that race is relevant as a sociological risk factor. Racial discrimination, narrowly defined, refers to discrimination on the basis of skin color or physical characteristics. However, in practice, racial discrimination and ethnic discrimination are difficult to distinguish; both are associated with religion, language, distinct dress codes, and cultural heritage. Thus, we use the term *racial discrimination* to refer to a broader range of discrimination experiences that include discrimination on the basis of ethnic group classification. Indeed, in the United Kingdom, much of the discourse on discrimination is couched in ethnic and cultural, rather than racial, terms.

Perceived racial discrimination takes many forms. Direct racial discrimination includes insults, physical attacks, and denial of employment opportunities ("job denial"), and it may be considered as representing an acute life event that can precipitate mental illness. More subtle forms of thwarted job progress may act as chronic stressors. Both forms of discrimination may be harmful.

Ethnic variations in physical and mental disorders can, in part, be explained by ethnic differences in socioeconomic status[15] and coping strategies.[16] However, at a population level, the health effects of discrimination are not entirely explained by socioeconomic structures.[17] In this study, we assessed racial discrimination and common nonpsychotic mental disorders in a nationally representative sample of working individuals. In the United Kingdom, there are 300 000 racially motivated attacks each year, and discrimination is widespread in terms of educational and employment opportunities. Discussion of race relations in the country has focused on disaffected and unemployed individuals in working-class areas; however, there has been relative neglect of racial discrimination in the workforce, even though it is in this realm that racism may be most pernicious.

Thus, our goal was to assess the impact of discrimination on the UK workforce. We posited that racial discrimination in the workforce might precipitate mental illness through direct effects on people's self-esteem and through chronic work-related stress. In addition, individuals subjected to discrimination are faced with the indirect threat of losing their job should their standard of work not be maintained owing to the disabilities associated with a mental disorder. We hypothesized that there would be variations in reported

prevalence rates of different types of perceived racial discrimination experiences across ethnic groups and that these experiences would have independent associations with common mental disorders.

METHODS

The Ethnic Minority Psychiatric Illness Rates in the Community (EMPIRIC) study investigated mental health morbidity in a representative sample of ethnic minority individuals residing in the United Kingdom. It followed up White British participants recruited for the 1998 Health Survey for England and drew a comparison sample of ethnic groups from the 1999 Health Survey for England. Ethnic group (Bangladeshi, Black Caribbean, Indian, Irish, Pakistani) was categorized according to family origin, and ethnic classifications correlated highly with information derived from 1991 census categories.[18,19]

The overall response rate for the EMPIRIC study was 68%. The original report documented the sampling methods and weighting procedures, which addressed different probabilities of selection into the sample and adjusted for nonresponse at the follow-up stage while ensuring that the weighted data reflected the actual sample size used in the analysis.[19] Respondents and interviewers were matched according to language and gender to improve response rates and data quality. Respondents were interviewed at their homes via a battery of tools assessing mental health, social support, social functioning, physical health, and health service use. Here we describe a secondary analysis of EMPIRIC data on 2054 respondents who reported that they were in paid employment.

Measures of Common Mental Disorders

In the EMPIRIC study, the Revised Clinical Interview Schedule, a validated, standardized clinical interview, was used to assess the presence of common mental disorders (i.e., anxiety and depression) on a continuous scale.[20] This scale identifies 14 common symptoms of anxiety and depression reported during the 2 weeks before the interview. The maximum potential score is 57; a score of 12 or more indicates a common mental disorder of clinical significance.[20] Continuous measures of mental disorders are recognized to reflect true population distributions,[21] and, although such measures are not widely used because of their poor clinical utility,[21] ascertainment of significant mental disorders on the Revised Clinical Interview Schedule shows good agreement with clinical diagnoses and need for clinical intervention.[20] This instrument also has been used in several studies to assess common mental disorders across cultures.[10,19,22]

Measures of Discrimination

Perceived racial discrimination was assessed via participants' responses (yes or no) to 3 questions. Two questions measured different aspects of perceived job-related racial discrimination. The first, "In the last 12 months, has anyone insulted you for reasons to do with your ethnicity?" addressed discrimination occurring both within and outside the work setting. This question was included because we hypothesized that discrimination occurring outside of the work setting may be an important determinant of mental health problems among workers. The second question, "Have you been treated unfairly at work with regard to promotion or a move to better positions for reasons which you think were to do with race, color, or your religious or ethnic background?" was designed to capture experiences of thwarted job-related aspirations, which we hypothesized to be important determinants of health problems among victims of discrimination.[8]

Finally, the third question assessed general perceived racial discrimination given that it may be a more powerful risk factor for mental disorder among the workforce. This question, "Have you been refused a job for reasons which you think were to do with your race, color, or your religious or ethnic background?" assessed lifetime experiences of job denial, which may be more important than any single incident.[5] In summary, using these questions, we assessed the relative importance of background racial discrimination in the form of insults, specific types of unfair treatment at work, and more general job denial.

Data Analysis

Stata 5.0[23] was used in conducting all data analyses; weighted logistic regressions and survey subcommands suitable for cluster sampled data were used to produce robust standard errors that were not inflated by the study's sampling or weighting methods.[19] Adjusted analyses were used to estimate odds ratios (ORs) in logistic regression models that included potential confounding factors such as age, gender, marital status, social class (manual or nonmanual), and educational level.

The 6 ethnic groups assessed were White British, Black Caribbean, Indian, Pakistani, Bangladeshi, and Irish. These categories reflect the main ethnic groups that have migrated to the United Kingdom from the Caribbean and the Indian subcontinent over the past 40 years, usually to seek employment. Of course, some members of the Black Caribbean group were descendents of those arriving in the country at a much earlier stage, during the slave trade. We grouped the Irish respondents in a separate category because, in 2001, Irish citizens were included in the census as a separate ethnic group for the first time in UK history. In addition, this separate grouping reflected concerns that their significant mental health needs had previously been overlooked as a result of their classification within the overall White British category.

In our statistical analyses, we assessed the ways in which specific types of perceived racial discrimination and demographic characteristics were related to ethnic group (Tables 1 and 2), the relative prevalence of common mental disorders across ethnic groups and demographic strata (Table 3), the relationship between each form of perceived discrimination and common mental disorders in all ethnic minorities aggregated into a single group and White British participants (Table 4), and the relationship between each form of perceived discrimination and common mental disorders in each ethnic group separately (Table 4).

Also, because endorsements of perceived racism items may cluster, we assessed whether perceived racial discrimination items showed independent associations with common mental disorders by repeating the modeling that compared ethnic groups, either as an aggregated all-ethnic-group variable or as distinct groups, with White British respondents, but this time including all discrimination experiences in each model (Table 4). Finally, differences between ethnic groups in-

TABLE 1—Sample Demographic and Descriptive Data, by Race/Ethnicity

	White	Black Caribbean	Indian	Pakistani	Bangladeshi	Irish
Age, y, mean (SE)	40.6 (0.6)	38.7 (0.7)	39.6 (0.6)	34.7 (0.7)	33 (1.0)	41 (0.6)
Gender, no. (%)						
Female	258 (50.8)	192 (57.1)	165 (41.8)	66 (24.9)	18 (13.0)	222 (51.2)
Male	256 (49.2)	139 (42.9)	210 (58.2)	182 (75.1)	123 (87.0)	223 (48.8)
Marital status, no. (%)						
Married	311 (56.5)	131 (39.2)	310 (81.4)	202 (81.6)	84 (62.0)	277 (59.2)
Partner	48 (10.4)	34 (10.0)	11 (2.9)	5 (2.6)	28 (16.3)	40 (9.4)
Separated	15 (3.3)	10 (2.9)	5 (2.4)	1 (0.5)	0	20 (4.2)
Divorced	7 (1.2)	4 (0.1)	0	3 (1.0)	0	8 (1.4)
Widowed	31 (6.1)	33 (9.2)	10 (2.0)	5 (2.1)	1 (1.7)	27 (6.5)
Single	102 (22.5)	119 (37.8)	39 (11.1)	33 (12.4)	28 (20)	73 (19.3)
Social class, no. (%)						
Nonmanual	329 (62.6)	199 (61.3)	224 (58.3)	115 (48.5)	44 (34.9)	265 (58.5)
Manual	183 (37.4)	123 (38.7)	143 (41.7)	128 (51.5)	95 (65.1)	178 (41.5)
Educational status, no. (%)[a]						
None	82 (16.2)	49 (14.9)	63 (16.8)	74 (30.1)	68 (48.2)	77 (17.4)
Abroad	14 (2.8)	12 (3.6)	12 (3.2)	15 (6.1)	9 (6.4)	22 (5.0)
UK: NVQ 1–3	251 (49.5)	146 (44.3)	139 (37.2)	82 (33.3)	34 (24.1)	183 (41.3)
UK: NVQ 4–5 or higher	160 (31.6)	123 (37.3)	160 (42.8)	75 (30.5)	30 (21.3)	161 (36.3)

[a]Educational qualifications: NVQ = UK national vocational qualifications; abroad = non-UK qualifications; NVQ 4–5 or higher includes degree-level university qualifications.

dicate heterogeneity; however, because some of the point estimates were raised even among the White group, we assessed whether there might be an overall effect independent of ethnic group. We included all discrimination experiences and ethnic groups in a model designed to assess associations with common mental disorders.

RESULTS

Demographic data are presented in Table 1. In comparison with the other groups, more of the members of the Bangladeshi sample were male, manual workers, younger, and without formal educational qualifications. More of those in the Black Caribbean group were unmarried, and differences were particularly pronounced between this group and the Indian and Pakistani groups. Pakistanis were also unlikely to have any educational qualifications. There were statistically significant differences in the prevalence of perceived discrimination experiences across the ethnic groups studied (Table 2). The Black Caribbean group reported the most job denial and the most unfair treatment at work, and Pakistanis reported higher levels of insults. Members of the Bangladeshi, Irish, and White British groups were least likely to report perceived racial discrimination. Women experienced higher levels of common mental disorders than men (Table 3). There were no ethnic differences in levels of mental disorders (overall $\chi^2_5 = 5.12$, $P = .4$; Table 3).

Comparisons of point estimates showed that specific experiences of insults, job denial, and unfair treatment at work were associated with 2.6-, 1.8-, and 2.5-fold greater risks, respectively, of common mental disorders among ethnic groups aggregated into a single category. When the independent effects of each type of reported discrimination were assessed among all ethnic groups aggregated into a single category, insults and unfair treatment at work remained significantly associated, with 2.0-fold and 2.3-fold greater risks, respectively, of common mental disorders among those reporting discrimination experiences relative to those not reporting such experiences (Table 4).

TABLE 2—Prevalence of Reported Perceived Discrimination, by Race/Ethnicity

	White, No. (%)	All Ethnic Minority Groups, No. (%)	Black Caribbean, No. (%)	Indian No. (%)	Pakistani, No. (%)	Bangladeshi, No. (%)	Irish, No. (%)
Insults regarding race or religion/language							
Yes	31 (6.6)	178 (11.0)**	46 (14.2)**	47 (12.0)*	43 (15.5)**	9 (6.5)	33 (7.4)
No	483 (93.4)	1361 (89.0)	284 (85.8)	328 (88.0)	205 (84.5)	132 (93.5)	412 (92.6)
Previous job denial							
Yes	17 (3.2)	264 (16.6)***	110 (32.7)***	71 (17.1)***	47 (18.6)***	13 (11.4)**	23 (5.4)
No	496 (96.8)	1262 (83.4)	214 (67.3)	303 (82.9)	198 (81.4)	126 (88.6)	421 (94.6)
Unfair treatment at work							
Yes	6 (1.5)	222 (13.5)***	89 (26.5)***	73 (17.0)***	32 (12.0)***	8 (8.8)**	19 (3.8)*
No	507 (98.5)	1309 (86.5)	223 (73.5)	301 (83.0)	214 (88.0)	130 (91.2)	426 (96.2)

*$P < .05$; **$P < .01$; ***$P < .001$ (for comparisons of prevalence of ethnic group discrimination experiences in univariate weighted logistic regression models).

TABLE 3—Percentages of Members of Each Racial/Ethnic Group With Common Mental Disorders, by Sociodemographic Strata and Responses to Discrimination Questions

	White, No. (%)	Black Caribbean	Indian	Pakistani	Bangladeshi	Irish
Gender						
Female, no. (%)	22 (20.6)	34 (18.3)	29 (16.5)	14 (19.5)	5 (44.1)	44 (18.5)
SE	1.8	3.1	3.2	5.0	13.8	3.0
Male, no. (%)	50 (8.7)	14 (8.7)	22 (8.6)	20 (9.1)	6 (7.5)	32 (15.2)
SE	2.7	2.4	0.2	2.2	3.3	2.8
Common mental disorder						
Yes, no. (%)	72 (14.8)	48 (14.1)	51 (11.9)	34 (11.7)	11 (12.2)	76 (16.9)
SE	1.7	2.0	1.8	2.1	3.8	2.0
Social class						
Nonmanual, no. (%)	49 (15.8)	32 (16.5)	28 (11.0)	19 (14.7)	5 (19.6)	47 (18.4)
SE	2.1	2.9	2.9	3.3	7.9	2.7
Manual, no. (%)	23 (13.1)	14 (10.0)	21 (13.0)	14 (8.6)	6 (8.5)	29 (15.0)
SE	2.6	2.8	3.0	2.6	3.4	3.0
Insults regarding race or religion/language						
Yes, no. (%)	7 (23.9)	9 (20.0)	11 (24.4)	10 (21.5)	4 (54.5)	11 (29.3)
SE	8.4	6.2	7.5	6.8	18.6	8.7
No, no. (%)	65 (14.0)	39 (13.2)	40 (10.2)	24 (9.9)	7 (9.3)	65 (16.0)
SE	1.7	2.2	1.7	2.1	3.6	2.1
Previous job denial						
Yes, no. (%)	4 (22.6)	20 (18.1)	12 (17.1)	11 (17.5)	3 (27.3)	7 (36.1)
SE	10.6	3.9	5.0	5.4	14.6	11.2
No, no. (%)	68 (14.5)	26 (11.9)	39 (10.9)	23 (10.5)	8 (10.5)	68 (15.6)
SE	1.7	2.4	1.9	2.3	3.8	2.0
Unfair treatment at work						
Yes, no. (%)	1 (14.9)	22 (22.6)	15 (20.6)	9 (22.3)	2 (39.0)	6 (32.0)
SE	13.9	4.7	5.3	7.5	20.0	11.9
No, no. (%)	71 (14.8)	26 (11.3)	36 (10.7)	25 (10.2)	9 (10.0)	9 (10.0)
SE	1.7	2.2	1.8	2.1	3.5	3.5

Note. Standard errors refer to percentages.

When each ethnic group was investigated separately to assess independent associations with reported discrimination experiences, insults carried the greatest risk of common mental disorders among Bangladeshi, Indian, and Irish respondents (3-fold greater risks were observed among Indian and Irish respondents); unfair treatment at work was a risk factor for the Black Caribbean group (2.9-fold excess risk; Table 4). No significant associations were found with job denial. These data suggest higher risks among non-White groups, with the highest overall risks observed among Black Caribbean, Indian, Irish, and Bangladeshi participants; overall, these ethnic groups exhibited approximately a 3-fold excess risk. None of the findings for the White group reached statistical significance.

Finally, in the model adjusting for all reports of perceived racial discrimination and including ethnic group classification, the risk of common mental disorders was twice as high among those exposed to racist insults (OR=2.3; 95% confidence interval [CI]=1.4, 3.4; $P<.001$) and unfair treatment at work (OR=2.1; 95% CI=1.3, 3.4; $P=.004$); the association between discrimination and job denial was nonsignificant (OR=1.5; 95% CI=0.9, 2.3; $P=.1$). In this model, the Black Caribbean group had a significantly lower risk than the White group of common mental disorders (OR=0.5; 95% CI=0.3, 0.9; $P=.01$).

DISCUSSION

We found a higher rate of perceived racial discrimination in 5 ethnic minority groups than in a White reference group (referring to what we consider to be White British). Rates of job-related discrimination varied among the different ethnic groups, which may have reflected differences in work patterns and levels of concentration of ethnic groups in different geographic areas. Differing levels of cultural integration or acculturation also may explain ethnic variations in perceived discrimination and hence access to the job market. Independent associations were observed between common mental disorders and the experience of racial insults and perception of unfair treatment at work. The associations between different types of perceived discrimination and mental disorders differed according to ethnic group.

Our study involved some limitations. For example, perceived racism does not always reflect current employment experiences. The survey was cross-sectional, and reverse causality may be implicated; for instance, common mental disorders may lead to greater reporting of racist experiences. However, if this explains our findings, reasons for racist attributional styles predominating among all ethnic minority groups warrant explanation. This may in itself reflect greater experiences of discrimination or adverse life events, perhaps complicating any classification of the mechanism through which discrimination can affect health status.

Previous research suggests that chronic daily hassles (annoying or troublesome concerns or stressors) are involved in the genesis of ill health in the face of discrimination experiences.[5] Our finding of a higher risk of common mental disorders among individuals reporting unfair treatment at work supports such a thesis. The absence of an association between job denial and common mental disorders in adjusted analyses may suggest that other influences (e.g., resilience) or measurement, recall, and selection bias are more significant in regard to this issue. However, it

TABLE 4—Relationships Between Experiences of Racism and Common Mental Disorders, Adjusted for Age, Gender, Social Class, Marital Status, and Educational Level

Model Parameters	Discrimination Experiences	White, OR (95% CI) *P*	All Ethnic Minority Groups, OR (95% CI) *P*	Black Caribbean, OR (95% CI) *P*	Indian, OR (95% CI) *P*	Pakistani, OR (95% CI) *P*	Bangladeshi, OR (95% CI) *P*	Irish, OR (95% CI) *P*
Separate models for each type of discrimination and for each ethnic group	Insults	2.1 (0.8, 5.4) .14	2.6 (1.7, 3.9) <.001	1.6 (0.7, 3.8) .28	3.6 (1.5, 8.1) .003	2.3 (0.8, 7.2) .15	21.7 (2.8, 168.3) .003	3.0 (1.2, 7.4) .02
	Job denial	1.8 (0.5, 5.8) .35	1.8 (1.2, 2.7) .003	1.9 (0.9, 3.9) .08	2.0 (0.9, 4.8) .11	1.9 (0.7, 5.0) .19	2.1 (0.3, 16.7) .48	3.3 (1.3, 8.6) .02
	Unfair treatment	1.3 (0.2, 10.2) .84	2.5 (1.6, 3.8) <.001	3.3 (1.5, 8.4) .006	3.5 (1.4, 8.4) .006	3.1 (1.0, 9.3) .05	3.2 (0.2, 44.9) .39	3.0 (1.0, 9.2) .06
Separate models for each ethnic group but all discrimination experiences included in each	Insults	2.0 (0.8, 5.4) .16	2.3 (1.4, 3.6) .001	1.3 (0.5, 3.6) .55	3.1 (1.4, 7.2) .007	1.8 (0.5, 6.3) .39	32.9 (2.5, 436.0) .008	2.9 (1.1, 7.6) .04
	Job denial	1.6 (0.5, 5.6) .43	1.2 (0.8, 2.0) .39	1.3 (0.5, 3.0) .51	1.0 (0.3, 3.4) .99	1.2 (0.4, 3.9) .74	3.8 (0.3, 45.0) .29	2.8 (0.95, 8.4) .06
	Unfair treatment	0.9 (0.1, 6.6) .89	2.0 (1.2, 3.2) .009	2.9 (1.2, 7.3) .02	3.0 (0.9, 10.1) .07	2.3 (0.7, 7.3) .17	0.8 (0.03, 19.2) .88	2.2 (0.5, 9.2) .27

Note. OR = odds ratio; CI = confidence interval. ORs refer to odds of common mental disorders among those with reported experiences as compared with those with no reported experiences.

could be argued that thwarted aspirations due to unfair treatment are more important than job denial because they reflect the impact of discrimination and one's inability to overcome it and because the effects of the discrimination will be evident every time one goes to work. A recent review of factors considered to mediate the association between racism and mental health among African Americans emphasized the importance of striving for upward social mobility, along with the significance of discrimination, which can block opportunities, and stress due to differences between aspirations and expectations.[24]

In the case of several ethnic groups, insults are consistently associated with common mental disorders. In this study, occurrence of insults was measured in regard to the preceding 12 months, thus possibly lessening recall bias. Insults are direct and include humiliation, which is known to be a risk factor for depression.[25] Decreasing racial discrimination would be a fundamental principle of any strategy. However, investigating the reasons why insults seem more pernicious for some groups (e.g., Indian and Bangladeshi) than others may result in the identification of work or sociocultural factors that can be manipulated to develop work-based interventions. The mediating cognitive and emotional processes associated with any given coping style may be amenable to psychosocial intervention. For example, active problem-focused coping is a healthier response to discrimination at work than passive emotion-focused coping.[26] Similarly, in a 13-year follow-up study involving an African American sample, attribution of negative events to external factors (e.g., systemic societal racism) rather than to individual personal characteristics was found to be associated with lower mortality rates.[27]

Bangladeshis reported fewer racist experiences than members of the other groups, yet they were also most vulnerable to common mental disorders associated with discrimination. This finding may reflect a higher threshold for endorsing the racism questions in this group. However, the sample of Bangladeshis was small, so our estimates may be unstable. Although there were few Bangladeshi women in the sample, our findings held despite adjustment for gender. Specific type of employment is also likely to be important but was not assessed in this study. For example, family restaurant businesses offer a supportive environment but may include racist insults from customers. An intriguing finding was the lower risk of common mental disorders among the Black Caribbean group than among the White group, despite high levels of job denial. This may reflect greater resilience, or it may indicate that Black Caribbean people suffering common mental disorders have been excluded from the labor market.

The present findings suggest that there are ethnic variations in associations between common mental disorders and experiences of discrimination. However, discrimination may be an important risk factor irrespective of ethnic group. White people may be subjected to racial discrimination by minority group individuals or be discriminated against on the basis of their religious beliefs. These aspects are less prominent in the literature, but, in the face of globalization and multiethnic urban environments, the racial discrimination experiences of White workers may also be of importance in regard to public health.

Discrimination in the workplace is common and is a risk factor for common mental disorders. However, insults occurring both within and outside the workplace were associated with mental disorders, suggesting that an overall public health response is essential alongside work-based interventions. Promoting employment opportunities alone cannot improve the health and well-being of ethnic minority groups. Improving working conditions, promoting organizational strategies that support coping behaviors, and challenging discrimination will improve mental health.[26] Future research must include long-term prospective studies of workers and qualitative studies that explore mechanisms mediating the effects of discrimination. ■

About the Authors

Kamaldeep Bhui and Stephen Stansfeld are with the Centre for Psychiatry, Barts, and the London Medical School,

Queen Mary University of London, London, England. Kwame McKenzie is with the Department of Psychiatry, Royal Free and University College London School of Medicine, University of London. Saffron Karlsen and James Nazroo are with the Department of Epidemiology and Public Health, University College London, University of London. Scott Weich is with the Department of Psychiatry, Warwick Medical School, University of Warwick, Warwick, England.

Requests for reprints should be sent to Kamaldeep Bhui, MD, Centre for Psychiatry, Barts, and London School of Medicine, Queen Mary, London E1 4NS, United Kingdom (e-mail: k.s.bhui@qmul.ac.uk).

This article was accepted June 29, 2004.

Contributors

All of the authors contributed to study design, data interpretation, and the writing of the article. Kamaldeep Bhui undertook the analyses and revised the article.

Acknowledgments

The original study was funded by the United Kingdom Department of Health. Representatives from the Department of Health contributed to formulating the original study questions but did not contribute to the writing of this article.

Human Participant Protection

The original data collection was undertaken with approval from relevant ethical approval bodies in the United Kingdom. The present study involved an analysis of the public data set that arose from the EMPIRIC study, and thus further ethical approval was not necessary.

References

1. Darity WA Jr. Employment discrimination, segregation, and health. *Am J Public Health.* 2003;93:226–231.

2. Murray LR. Sick and tired of being sick and tired: scientific evidence, methods, and research implications for racial and ethnic disparities in occupational health. *Am J Public Health.* 2003;93:221–226.

3. Yen IH, Ragland DR, Greiner BA, Fisher JM. Racial discrimination and alcohol-related behavior in urban transit operators: findings from the San Francisco Muni Health and Safety Study. *Public Health Rep.* 1999;114:448–458.

4. McKenzie K. Racism and health. *BMJ.* 2003;326:65–66.

5. Meyer IH. Prejudice as stress: conceptual and measurement problems. *Am J Public Health.* 2003;93:262–265.

6. Stansfeld SA, Fuhrer R, Head J, Ferrier J, Shipley M. Work and psychiatric disorder in the Whitehall II Study. *J Psychosom Res.* 1997;43:73–81.

7. Mays VM, Coleman LM, Jackson JS. Perceived race-based discrimination, employment status, and job stress in a national sample of black women: implications for health outcomes. *J Occup Health Psychol.* 1996;1:319–329.

8. James SA, LaCroix AZ, Kleinbaum DG, Strogatz DS. John Henryism and blood pressure differences among black men: II. The role of occupational stressors. *J Behav Med.* 1984;7:259–275.

9. Goldberg D, Huxley P. *Common Mental Disorders: A Bio-Social Model.* London, England: Routledge; 1992.

10. Bhui K, Bhugra D, Goldberg D, Dunn G, Desai M. Cultural influences on the prevalence of common mental disorder, general practitioners' assessments and help-seeking among Punjabi and English people visiting their general practitioner. *Psychol Med.* 2001;31:815–825.

11. Murphy JM, Monson RR, Olivier DC, Sobol AM, Leighton AH. Affective disorders and mortality: a general population study. *Arch Gen Psychiatry.* 1987;44:473–480.

12. Wells KB, Golding JM, Burnam MA. Psychiatric disorder and limitations in physical functioning in a sample of the Los Angeles general population. *Am J Psychiatry.* 1988;145:712–717.

13. Croft-Jefferys C, Wilkinson G. Estimated costs of neurotic disorder in UK general practice. *Psychol Med.* 1989;19:549–558.

14. Broadhead WE, Blazer D, George L, Tse C. Depression, disability and days lost from work. *JAMA.* 1990;264:2524–2528.

15. Nazroo J. *The Mental Health of Ethnic Minorities in Britain.* London, England: Policy Studies Institute; 1997.

16. Sproston K, Bhui K. Ethnic differences in the context and experience of psychiatric illness: a qualitative study. Available at: http://www.dh.gov.uk/assetRoot/04/02/39/52/04023952.pdf. Accessed May 11, 2004.

17. Karlsen S, Nazroo JY. Relation between racial discrimination, social class, and health among ethnic minority groups. *Am J Public Health.* 2002;92:624–631.

18. Erens B, Primatesta P, Prior G. *Health Survey for England 1999: The Health of Minority Ethnic Groups.* London, England: The Stationery Office; 2001.

19. Sproston K, Nazroo JY. *Ethnic Minority Psychiatric Illness Rates in the Community (EMPIRIC).* London, England: The Stationery Office; 2002.

20. Lewis G, Pelosi AJ, Araya R, Dunn G. Measuring psychiatric disorder in the community: a standardized assessment for use by lay interviewers. *Psychol Med.* 1992;22:465–486.

21. Jacob KS, Everitt BS, Patel V, Weich S, Araya R, Lewis GH. The comparison of latent variable models of non-psychotic psychiatric morbidity in four culturally diverse populations. *Psychol Med.* 1998;28:145–152.

22. Kendell R, Jalbensky A. Distinguishing between validity and utility of psychiatric diagnoses. *Am J Psychiatry.* 2003;160:4–12.

23. *Stata, Version 5.0* [computer program]. College Station, Tex: Stata Corp; 1997.

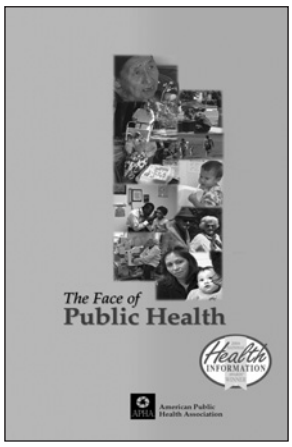
24. Williams DR, Neighbors H. Racism, discrimination and hypertension: evidence and needed research. *Ethn Dis.* 2001;11:800–816.

25. Brown GW, Moran PM. Single mothers, poverty and depression. *Psychol Med.* 1997;27:21–33.

26. Noh S, Kaspar V. Perceived discrimination and depression: moderating effects of coping, acculturation, and ethnic support. *Am J Public Health.* 2003;93:232–238.

27. LaVeist TA, Sellers R, Neighbors HW. Perceived racism and self and system-blame attribution: consequences for longevity. *Ethn Dis.* 2001;11:711–721.

NOW Available on DVD and VHS!



In this moving video, the people of public health share what they do and how their work improves and protects the lives of those in their communities. Color, 8 minutes. Available in DVD and VHS.

$13.95 APHA Members • $19.95 Nonmembers
Stock No. VHS 0-87553-033-8
Stock No. DVD 0-87553-044-3

American Public Health Association
800 I Street, NW,
Washington, DC 20001
www.apha.org

ORDER TODAY!
American Public Health Association
Publication Sales
Web: www.apha.org
E-mail: APHA@pbd.com
Tel: 888-320-APHA
FAX: 888-361-APHA